



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/555,168	07/18/2000	MASAMI KATO	MI029/7001	8033

7590 06/04/2003

THERESE A HENDRICKS
WOLF GREENFIELD & SACKS
FEDERAL RESERVE PLAZA
600 ATLANTIC AVENUE
BOSTON, MA 02210-2211

EXAMINER

LEYSON, JOSEPH S

ART UNIT

PAPER NUMBER

1722

11

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/555,168

Applicant(s)

KATO ET AL.

Examiner

Joseph Leyson

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,14-17,20,22,24 and 27-40 is/are pending in the application.
- 4a) Of the above claim(s) 1,2 and 14-17 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 36-40 is/are allowed.
- 6) ☒ Claim(s) 20,22,24 and 27-29 is/are rejected.
- 7) ☒ Claim(s) 30-35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Art Unit: 1722

1. This application contains claims 1, 2 and 14-17 drawn to a nonelected invention in Paper No. 7 filed on 21 August 2002. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1722

4. Claims 20, 22, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skidmore(-348) in view of Surface(-828).

Skidmore(-348) discloses a mixing device for manufacturing moldings including a main cylinder 11 connected to a metal mold 24 for forming the moldings, a main screw 13 rotated in the main cylinder 11 for mixing resin material and for delivering the same to the metal mold 24, a main throw-in machine 14 connected to the main cylinder 11 at a start end part thereof for throwing a first material into the main cylinder 11, a sub-throw-in machine 20 connected to the main cylinder 11 at a part between the metal mold 24 and the main throw-in machine 14 for throwing a second material into the main cylinder 11, a second material holding part 20 for holding the second material, a sub-throw-in hole 20 for delivering the second material to the main cylinder 11, and a receiving hole 23 positioned in the main cylinder 11 between the metal mold 24 and the main throw-in machine 14. The receiving hole 23 is a vent hole 23. Note that a vent hole 21, the sub-throw-in hole and the receiving hole 23 define a plurality of receiving holes in a direction of extrusion. However, Skidmore(-348) does not disclose a rotating direction side of the main screw in a cylinder inner wall of the receiving

Art Unit: 1722

hole of the main cylinder being formed in such a manner as to expand the receiving hole.

Surface(-828) discloses a mixing device including a main cylinder 18, 34, a main screw 20 rotated in the main cylinder 18, 34, a receiving hole 44 in the main cylinder 18, 34 defining a vent hole 44, wherein a rotating direction side of the main screw 20 in a cylinder inner wall of the receiving hole 44 of the main cylinder 18, 34 is formed in such a manner as to expand the receiving hole 44 which prevents material in the mixing device from entering or obstructing the receiving hole 44 (i.e. see abstract).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the mixing device of Skidmore(-348) such that a cylinder inner wall of the receiving hole of the main cylinder is formed in such a manner as to expand the receiving hole because such a modification would prevent material in the mixing device from entering or obstructing the receiving hole as disclosed by Surface(-828).

5. Claims 24 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skidmore(-348) in view of Surface(-828) as applied to claims 20, 22, 27 and 28 above, and further in view of Bilhorn(-904).

Art Unit: 1722

Bilhorn(-904) discloses a mixing device including a sub-throw-in machine 12 which includes a sub-screw rotated in a sub-cylinder for throwing materials into a main cylinder 2 of the mixing device (see fig. 1).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the device such that the sub-throw-in machine includes a sub-screw rotated in a sub-cylinder because such a modification would provide an art-recognized alternative configuration for a sub-throw-in machine as disclosed by Bilhorn(-904) for throwing materials into a main cylinder of a mixing device.

6. Claims 36-40 are allowed.

7. Claim 33 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 30, 31, 34, 32 and 35 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 36-40, respectively. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a

Art Unit: 1722

substantial duplicate of the allowed claim. See MPEP

§ 706.03(k).

9. Applicant's arguments with respect to the instant claims have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that the receiving hole of Surface(-828) is a vent hole and does not receive material therein. The examiner agrees. Also, the receiving hole of Skidmore(-348) mentioned in the prior art rejection above is a vent hole. Therefore, there is a reasonable expectation of success to modify a vent hole with another vent hole reference. Note that even instant claim 22 recites the receiving hole being a vent hole. The instant specification even discloses receiving holes 11B and 11C as vent holes. However, even if applicants modified the vent hole to positively receive material, i.e. from a hopper, such receiving holes having an expansion portion for receiving material is known in the art as mentioned in prior art already cited, i.e., Hotz(-765), Eppler(-659) and Roehlig et al.(-348).

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is

Art Unit: 1722

reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Leyson whose telephone number is (703) 308-2647. The examiner can normally be reached on M-F(8:30-6:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (703) 308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Application/Control Number: 09/555,168

Page 8

Art Unit: 1722

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

jl

jl

June 2, 2003

James Mackey

JAMES P. MACKEY
PRIMARY EXAMINER

6/2/03